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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/074,304

02/12/2002

Rusty Shepard

06005/38039

6402

4743

7590

02/06/2004

MARSHALL, GERSTEIN & BORUN LLP  
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EXAMINER

SHIN, CHRISTOPHER B

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 02/06/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/074,304

**Applicant(s)**

SHEPARD ET AL.

**Examiner**

Christopher B Shin

**Art Unit**

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-48 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 2182

### **DETAILED ACTION**

1. Some of IDS (PTO-1449) do not have class/subclass number properly filled, please submit a IDS with proper class/subclass information in response to this office action.

#### ***Election/Restriction***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-39 are, drawn to a system for use in a controlling a plurality of devices, classified in class 700, subclass 1+ or class 710, subclass 1+.
  - II. Claims 42-48 are, drawn to a configuration method for physical and logical communicatively connected devices, classified in class 710, subclass 104 or 8.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as configuration method in a physically and logically communicatively connected devices rather than controlling system of a plurality of devices. See MPEP § 806.05(d).
4. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

Art Unit: 2182

5. The invention I - claims 1-39 contains too many different species with a broad generic claimed system; as a result, the examiner finds difficulty determining the main scope of the invention.

6. This application contains claims directed to the following patentably distinct species of the claimed invention (the followings are list of species, i.e., I means specie 1) :

- i. Claims 4, 30 & 41 directed to MODBUS TCP;
- ii. Claims 5, 8 & 31 directed to register map;
- iii. Claims 6, 29 & 40 directed to serial communication port;
- iv. Claims 7 & 32 directed to RS-485 comm port;
- v. Claims 10 & 33 directed to non-volatile portion adapted to store configuration pertaining to the controller;
- vi. Claim 11 directed to non-volatile portion ... programming routine;
- vii. Claims 12 & 34 directed a distributed process control system programming paradigm;
- viii. Claims 13 directed to Fieldbus protocol;
- ix. Claims 14 & 35 directed to object oriented programming paradigm;
- x. Claims 15 & 36 directed execute one or more programming routines when port is not connected;
- xi. Claim 16 directed to fuzzy logic control routine ;
- xii. Claim 17 directed to neural network control routine;
- xiii. Claim 18 directed to model predictive control routine;
- xiv. Claim 19 directed to adaptive tuning routine;
- xv. Claim 20 directed to optimization routine ;
- xvi. Claim 21 directed to alarming routine;
- xvii. Claim 22 directed to diagnostic routine;
- xviii. Claim 23 directed to wireless transmitter & receiver;
- xix. Claims 24 and 37 directed to ruggedized housing;
- xx. Claim 25 directed to sealed housing;
- xxi. Claims 26 and 38 directed to safe housing in an hazardous location; and
- xxii. Claim 27 directed multiplexor connected communication port.

Art Unit: 2182

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-~~2~~, 28 and 39 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. All of the species becomes automatically allowable when the parent/independent claims become allowable. Examiner kindly suggest the applicant to amend the independent claim to overcome the prior art. After careful initial consideration of the present claims the generic claims seems to be too broad, and therefore, it reads on many teachings in the art.

Art Unit: 2182

8. A telephone call was made to on to request an oral election to the above restriction requirement, but did not result in an election being made. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

10. **Any Response To This Action Should Be Mailed To:**

**If The Action Is Non-Final**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(703) 892-9306, (for formal communications intended for entry)

**If The action is Final**

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P.O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(703) 892-9306, (for formal communications; please mark "EXPEDITED  
PROCEDURE")

**Hand-delivered responses should be brought to**

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Application/Control Number: 10/074,304

Page 6

Art Unit: 2182

Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202

**Any Other Telephone Communication Should Be Directed To**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Shin whose telephone number is (703) 305-9658. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:00 PM.

Christopher B. Shin  
February 3, 2004

*Christopher B. Shin*  
**PRIMARY EXAMINER**  
**ART UNIT 2182**